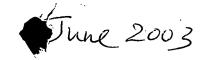


=> d his

(FILE 'HOME' ENTERED AT 13:04:43 ON 20 JUN 2003)

	FILE 'MEDL	INE, BIOSIS' ENTERED AT 13:04:48 ON 20 JUN 2003
L1	291	S ZUCKER DIABETIC FATTY RAT?
L2	2	S L1 AND TZD
L3 .	30	S L1 AND (PIOGLITAZONE OR ROSIGLITAZONE)
L4	21	DUP REM L3 (9 DUPLICATES REMOVED)
L5	0	S L4 AND GLP-1





L4 ANSWER 2 OF 21 MEDLINE

DUPLICATE 1

TI Intramyocellular lipid and insulin resistance: a longitudinal in vivo 1H-spectroscopic study in **Zucker diabetic**fatty rats.

- AU Kuhlmann Johanna; Neumann-Haefelin Claudia; Belz Ulrich; Kalisch Jurgen; Juretschke Hans-Paul; Stein Marion; Kleinschmidt Elke; Kramer Werner; Herling Andreas W
- SO DIABETES, (2003 Jan) 52 (1) 138-44. Journal code: 0372763. ISSN: 0012-1797.
- AB Insulin resistance plays an important role in the pathogenesis of human type 2 diabetes. In humans, a negative correlation between insulin sensitivity and intramyocellular lipid (IMCL) content has been shown; thus, IMCL becomes a marker for insulin resistance. Recently, magnetic resonance spectroscopy (MRS) has been established as a dependable method for selective detection and quantification of IMCL in humans. To validate the interrelation between insulin sensitivity and IMCL in an animal model of type 2 diabetes, we established volume selective (1)H-MRS at 7 Tesla to noninvasively assess IMCL in the rat. In male obese Zucker

Diabetic Fatty rats and their lean

littermates, IMCL levels were determined repeatedly over 4 months, and insulin sensitivity was measured by the euglycemic-hyperinsulinemic clamp method at 6-7 and at 22-24 weeks of age. A distinct relation between IMCL and insulin sensitivity was demonstrated as well as age dependence for both parameters. Rosiglitazone treatment caused a clear reduction of IMCL and hepatic fat despite increased body weight, and a marked improvement of insulin sensitivity. Thus, the insulin sensitizing properties of rosiglitazone were consistent with a redistribution of lipids from nonadipocytic (skeletal muscle, liver) back into fat tissue.